CBRNE

“ Emerging threats to our homeland by both state and nonstate actors may be more likely in the future as our potential adversaries strike against vulnerable civilian targets in the United States to avoid confrontation with our military forces.”

National Security Strategy for a Global

CBRNE

- **DEFINITION**
- **WHY ???**
- **WHAT IS DENTISTRY'S ROLE**
- **MILITARY'S ROLE**
- **NEW**
- **QUESTIONS**

CBRNE

- **C**hemical
- **B**iological
- **R**adiological
- **N**uclear
- **E**xplosives

CBRNE
Chemical Warfare Agents

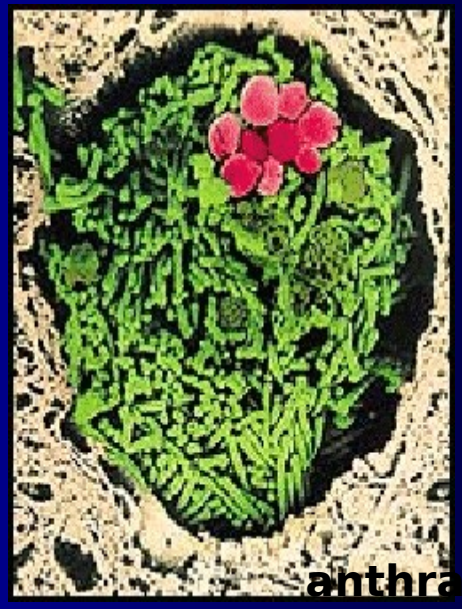
- **Nerve Agents** — **Tabun, Sarin, Soman, VX**
- **Vesicants** — **Mustard, Lewisite**
- **Industrial Chemicals** — **Phosgene, Chlorine, Ammonia, Cyanide**
- **Riot Control Agents** — **Mace®, Pepper Spray**

cBRNE
Biological Agents

- **Bacteria**
- **Viruses**
- **Toxins**

Bacteria as Biological Agents

- **Anthrax**
- **Plague**
- **Tularemia**
- **Q Fever**
- **Smallpox**


anthrax

plague

CBRNE
Radiological and Nuclear Devices

- Simple radiological device
- Radiological dispersal device
- Reactor
- Improvised nuclear device
- Nuclear weapon

CBRN**E** EXPLOSIVES

- **High yield**
- **Vehicle of choice**

CBRNE

- **DEFINITION**
- **WHY ???**
- **WHAT IS DENTISTRY'S ROLE?**
- **MILITARY'S ROLE**
- **NEW**
- **QUESTIONS**

SEPTEMBER 11TH

Modern History of Terrorism: The Middle East

Terrorism changed in the 1990's. The goal changed from gaining attention to mass destruction for its own sake.

- 1993 WTC
  - 6 dead, major damage to the building
- 1993 Somalia
  - Ranger team shot down and beaten to death
- 1995 Saudi Arabia
  - U.S. Military Headquarters
  - 5 Americans killed
- 1996 Saudi Arabia
  - Khobar Towers
  - 19 Americans killed
- 1997 Egypt
  - Temple of Hatshepsut
  - 58 tourists killed
- 1998 Kenya and Tanzania
  - 224 people killed
- 2000 Yemen
  - U.S.S. Cole
  - 17 sailors killed
- 2001 WTC / Pentagon
  - Nearly 3000 people killed
  - Destruction of the WTC

CBRNE

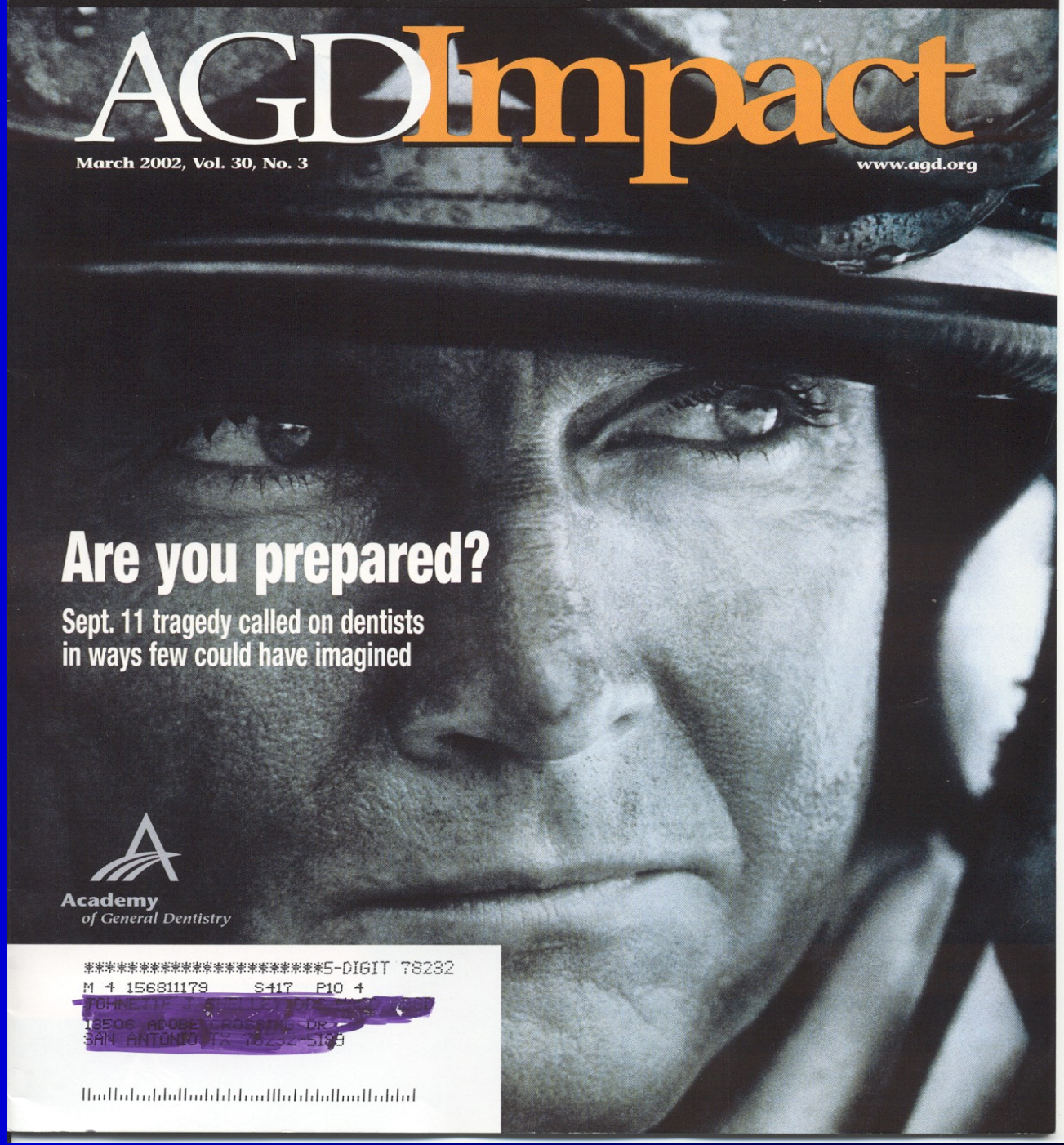
- **DEFINITION**
- **WHY ???**
- **WHAT IS DENTISTRY'S ROLE?**
- **MILITARY'S ROLE**
- **NEW**
- **RESOURCES**

The Newsmagazine of the Academy of General Dentistry

AGD Impact

March 2002, Vol. 30, No. 3

www.agd.org



Are you prepared?

Sept. 11 tragedy called on dentists in ways few could have imagined

Academy of General Dentistry

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Today's News

Jan. 18, 2002

PHS dental chief sees new role for dentists in disaster response

By Craig Palmer

Dr. Dushanka V. Kleinman

Bethesda, Md. — The "exemplary" service of dentists responding to Sept. 11 and anthrax terrorist attacks is shaping a new disaster-response role for the dental profession in the view of the chief dental officer of the U.S. Public Health Service.

"These events have tested both my leadership and that of the dental corps," said Dr. Dushanka V. Kleinman, PHS dental chief since July 1, 2001. "I must applaud the willingness, readiness, dedication and commitment of the dental officers. They were eager to contribute. Those who were deployed served in an

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Today's News

Nov. 29, 2001

Dental forensics role in disaster response lauded

By Craig Palmer

Washington — Dental teamwork and electronic dental identification triage were essential to the success of Operation Noble Eagle, "one of the most comprehensive forensic investigations in U.S. history," the Armed Forces Institute of Pathology said in a series of reports. The AFIP is a triservice agency of the Department of Defense.

"All avenues of forensic investigation were explored and deployed with zero defects," said Navy Capt. Glenn N. Wagner, AFIP director. Officials offered new details on AFIP's medicolegal response to the Sept. 11 terrorist attacks, code named Operation Noble Eagle, in reports posted online at the AFIP Web site.

They credit a multidisciplinary effort in which dentists and dental forensics played important roles in the identification of victims of the terrorist attacks and said they

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Role of Dentists 9/11

“Spontaneous and quickly organized rescue efforts by dentists assigned to the Pentagon Triservice Dental Clinic”

“Rapid deployment of AF dentists to support rescue efforts in NYC and on site services by Navy dentists”

“Dentist involvement at the Dover Air Force Base Port Mortuary in forensic identification of

Role of Dentists 9/11

- Forensic ID
- Search and rescue
- Logistics
- Treated Cranio-facial injuries

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Disaster Mortuary Operational Response Teams.

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Family Support
Why Have DMORT
How we Help
Families we Serve
Our History
NTSB Relationship
DPMU Equipment
People of DMORT
Applications

Who makes up a DMORT Team?

-Medical Examiner/Coroners

-Forensic Pathologists

- Forensic Anthropologists

- Fingerprint Specialists

- Forensic

-Mental Health Specialists

-DNA Specialists

-Computer Specialists

-Medical Records Technicians

-Transcriptionists

Internet
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DENTISTRY'S ROLE

- **PREVENTION** - Awareness, Suspicion of unusual people or events. Education of public.
- **EARLY RECOGNITION** - Unusual numbers (same area) and/or types of symptoms (acute fever, respiratory or GI) from patients. Rapid diagnostic technology (saliva based).
- **RESPONSE TO EVENT** - Triage, Referral, Decontamination, Medical Augmentation, Search and Rescue, Logistical Support, Treatment of Cranio-Facial Injuries, Shock Management.
- **FOLLOW ON SUPPORT** - Forensic Odontology, Surveillance for exposure

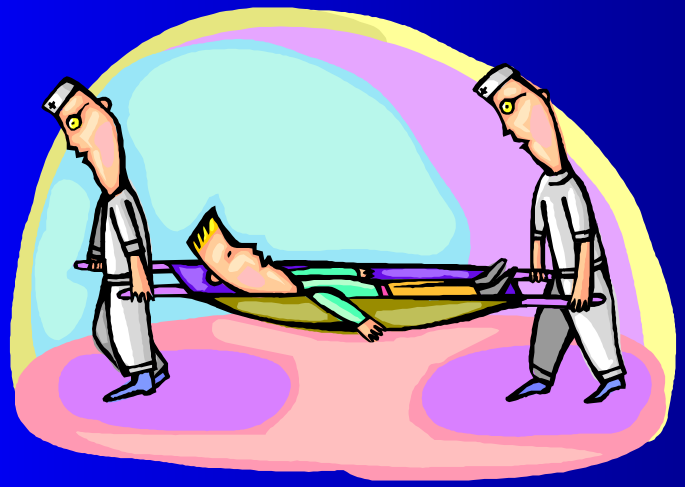
CBRNE

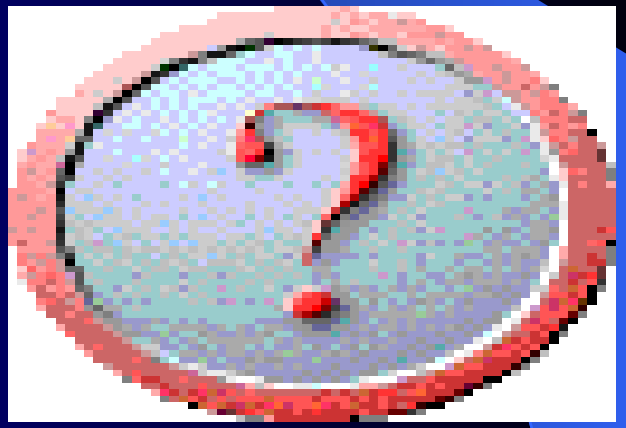
- **DEFINITION**
- **WHY ???**
- **DENTISTRY'S ROLE**
- **MILITARY'S ROLE**
- **NEW**
- **QUESTIONS**

OFFICER'S ROLE

- **TRIAGE**
- **FORENSICS**
- **OR TECH**
- **ANESTHESIA**
- **OOTW / AWR**

NCO'S ROLE





MEDCOM PAM 525-XXX

Medical Treatment Facilities (MTF).

(1)Identify, categorize, and prioritize potential threats within their AOR. Potential threats are areas of vulnerability to natural and manmade domestic emergencies and/or disasters or CBRNE incident on an installation.

(2)Plan for and develop emergency management plans for response to both natural and manmade domestic emergencies and/or disasters to include the medical response to a CBRNE on an installation within their HSA.

(3) Provide a copy of the plans to HQ, MEDCOM through the appropriate MSC.

Operational Concept

Two Prong CBRN Approach & Medical

Installation Support Team

Organize, equip and train installation (matrix) CBRN-IST to deter, detect hazard, respond to and recover from a chemical, biological, radiological and nuclear event

- **Immediate Capability**
- **Matrix-Supported**
- **Limited Capability**
- **Tailored to Installation**
- **Belongs to Installation**
- **0-24 Hours**

MEDCOM Special Medical Augmentation Response Team (SMART)

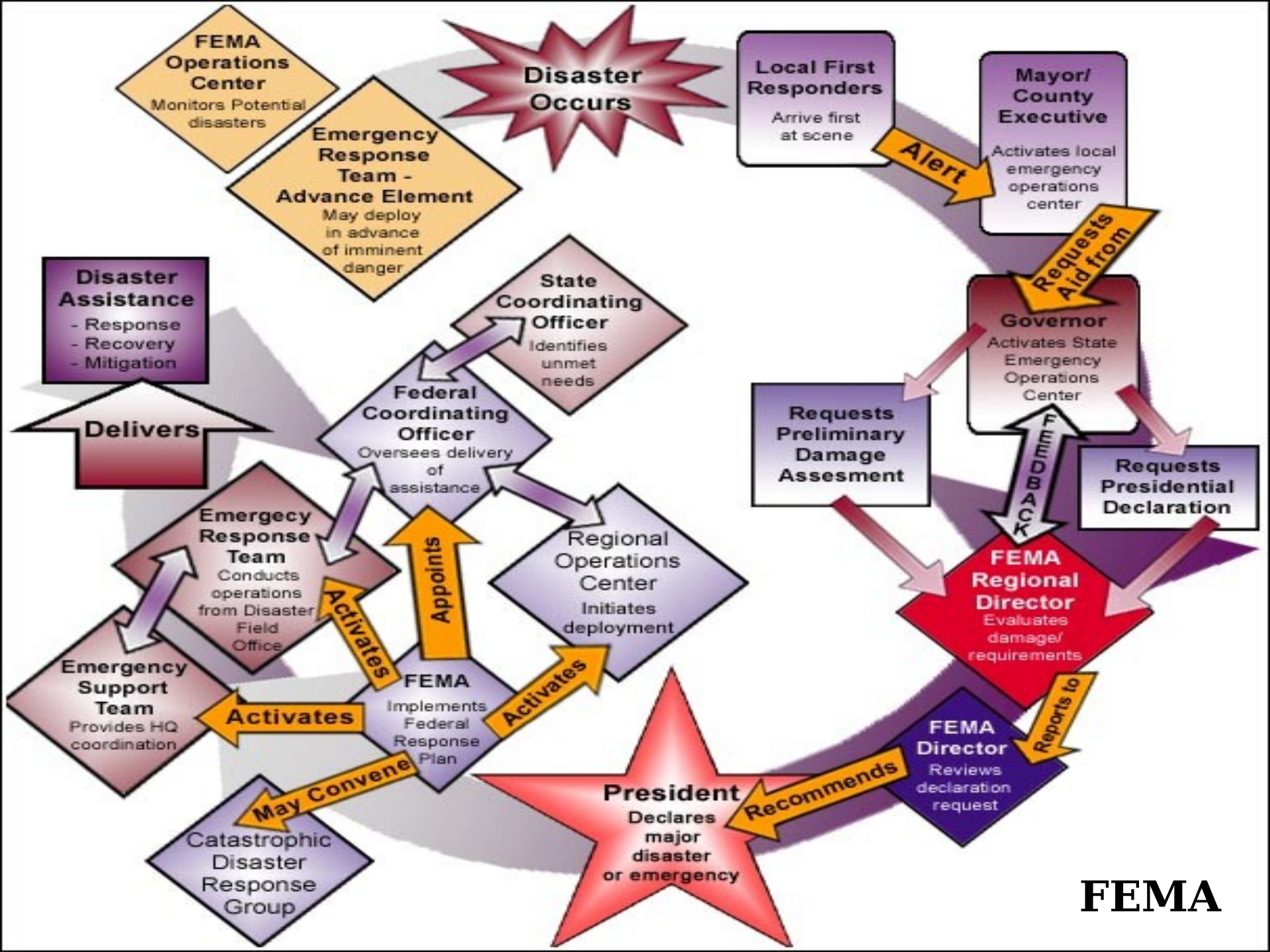
Provide short duration medical augmentation to Local, State, Federal and Defense Agencies for disasters, civil military cooperative actions, humanitarian assistance, and Weapons of Mass Destruction

- **Regionally Located**
- **Represent Specialties in Environmental Health, Epidemiology, Health Physics, Industrial Hygiene, Laboratory Sciences and Medicine.**
- **0-12 hours.**

Rapid Response Team

Organize, equip and train robust CBRN-RRTs to deploy to augment CBRN-IST to detect hazards, respond to and recover from a chemical, biological, radiological, and nuclear event

- **Located Strategically**
- **Compliments Capability Of MEDCOM SMART Tms And Chem-Bio Class VIII**
- **Follow-on Capability**
- **Full Time/Specialized**
- **More Robust Capability**
- **Uniform Structure**
- **12-48 Hours**


FEMA Operations Center
Monitors Potential disasters
Emergency Response Team - Advance Element
May deploy in advance of imminent danger
Disaster Occurs
Local First Responders
Arrive first at scene
Alert
Mayor/ County Executive
Activates local emergency operations center
Requests Aid from
Governor
Activates State Emergency Operations Center
Disaster Assistance
- Response
- Recovery
- Mitigation
Delivers
State Coordinating Officer
Identifies unmet needs
Federal Coordinating Officer
Oversees delivery of assistance
Requests Preliminary Damage Assesment
FEEDBACK
Requests Presidential Declaration
Emergecy Response Team
Conducts operations from Disaster Field Office
Appoints
Activates
Regional Operations Center
Initiates deployment
FEMA Regional Director
Evaluates damage/ requirements
Emergency Support Team
Provides HQ coordination
Activates
FEMA
Implements Federal Response Plan
Activates
Reports to
FEMA Director
Reviews declaration request
May Convene
Recommends
President
Declares major disaster or emergency
Catastrophic Disaster Response Group
FEMA

When a Disaster Occurs……

- Local First Responders Arrive At Scene
- Alert Mayor/County Executives
- Activate Local EOC/Request Aid From Governor
- Governor Activates State EOC/Request Aid From FEMA
- Regional FEMA Director Evaluates Disaster and Reports to the FEMA Director
- FEMA Director Reviews and Recommends to President
- The President Declares Major Disaster
- FEMA Implements the Federal Response Plan (Action)

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Together, we can save a life

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HELP NOW

- Donate Now
- Give Blood

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Disaster Services

Each year, the American Red Cross responds immediately to more than 67,000 disasters, including house or apartment fires (the majority of disaster responses), hurricanes, floods, earthquakes, tornadoes, hazardous materials spills, transportation accidents, explosions, and other natural and man-made disasters.

The Good News Is That We Can Help

Although the American Red Cross is not a government agency, its authority to provide disaster relief was formalized when, in 1905, the Red Cross was chartered by Congress to "carry on a system of national and international relief in time of peace and apply the same in mitigating the sufferings caused by

Spotlight

If you and your family need help coping with the tragedies, download our terrorism-related materials

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CBRNE

- **DEFINITION**
- **WHY ???**
- **WHAT IS OUR ROLE?**
- **MILITARY'S ROLE**
- **NEW**
- **QUESTIONS**

DRRT

- **DENCOM READY RESPONSE TEAM**
- **NOTIONAL CONCEPT RIGHT NOW**
- **UTILIZES EXPERIENCE IN DTF'S**

Background Assumptions

- Initial response to a CBRNE event at an Army installation will rely on local responders.
- CBRNE mass casualties may overwhelm the medical treatment facility (MTF).
- The MTF will require augmentation.
- Each Army installation has a dental treatment facility (DTF) with highly trained medical professionals available to assist the MTF.

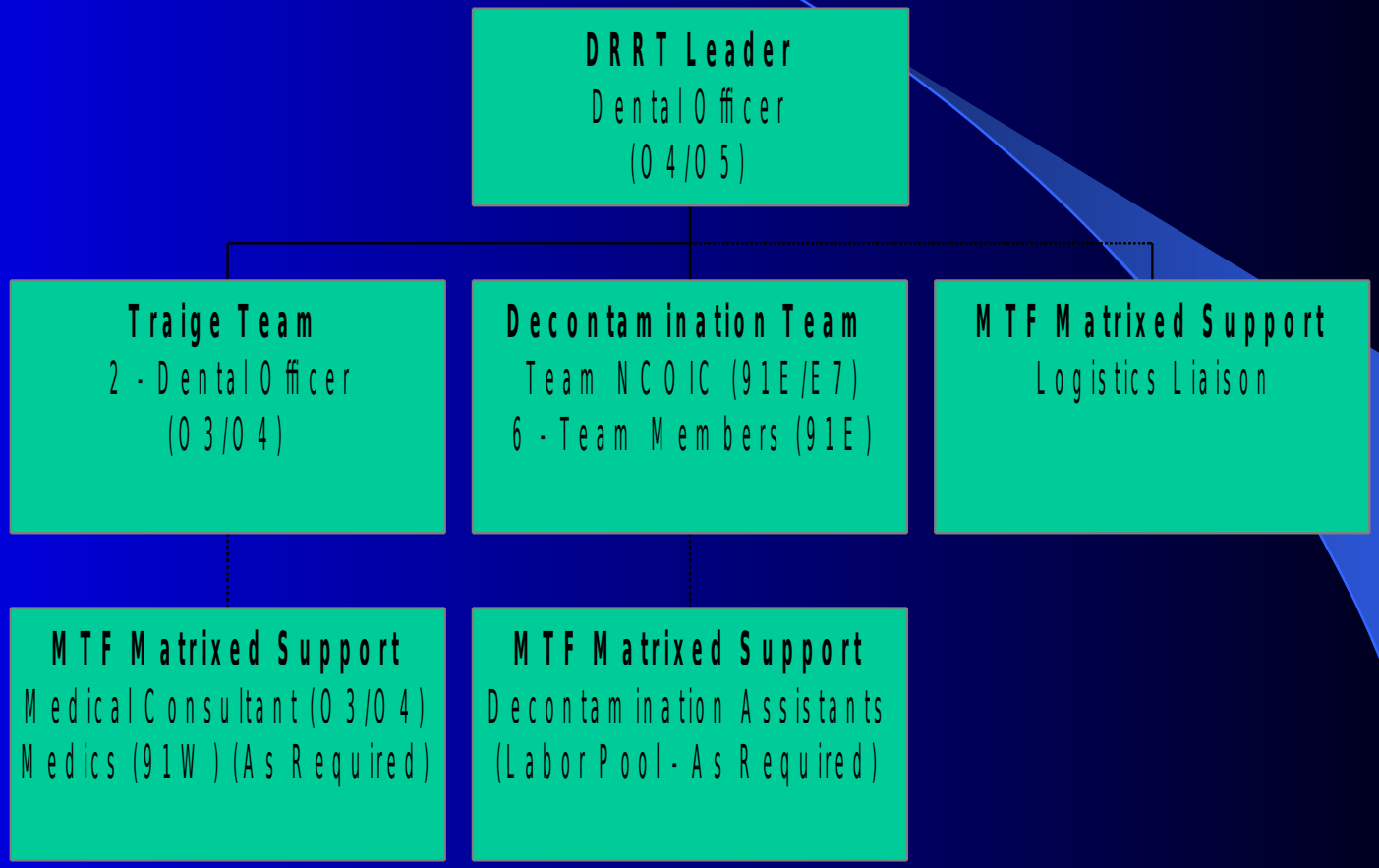
Background Assumptions

- Dental assistance is best provided by trained teams with a recognized and definable mission as part of the overall installation emergency response plan.
- Current “Alternate Wartime Roles” for Army installation dental personnel are not clearly defined and/or trained.

The DRRT Concept

- On order, the DRRT deploys from the DTF to the MTF, establishes a patient receiving station, performs triage, casualty decontamination, and immediate area monitoring for CBRNE agents.
- The DRRT relies on the MTF for logistics, medical consultation, medics, and support labor for patient decontamination.

DRRT Organization Chart



Key Element – Training

	Initial	Continuing
DRRT Leader	FEMA Incident Command Course; ATLS; MCBC; MEIR	ATLS requalification
Triage Officers	ATLS; MCBC; MEIR	ATLS requalification
Decon Teams	FCBC;	HAZMAT

Key Element - Training

	Initial	Continuing
All personnel	Respirator qualification; detection equipment operation; radio procedures	Annual respirator qualification; quarterly exercises; annual refresher in managing CBRNE casualties and individual CBRNE defense skills

Fielding Strategy

- Co-locate DRRTs with U. S. Army MEDCOM MTF Decon Locations
- Immediate – Field to the 23 U. S. MTFs (all with emergency rooms) presently equipped with decon equipment
- Follow on – Field to the 29 additional MTF decon locations proposed for 2002-2007 (17 outside the United States

Fielding Strategy

- Parallel formation of MEDCOM Decon Locations.
- 23 MTFs (all with emergency rooms) equipped with decon equipment presently
- 29 additional MTF decon locations proposed 2002 – 2007.

LIMITATIONS of DRRT

- Not deployable off installation
- Not staffed for extended operations
- DRRT not intended for decontaminating anything other than casualties
- Reliant on MTF for logistic support and matrixed human resource support

Questions?